

Claim 1 has been amended to delete polyamides and polyamide block copolymers from the recitation of thermoplastic polymers (M) therein.

New Claim 16 is an independent claim directed to thermoplastic compositions containing 75 to 85% by weight of a thermoplastic polymer which is a polyamide or a polyamide block copolymer and 25 to 15% by weight of (B), wherein (B) is either an ethylene-2-ethylhexyl (meth)acrylate copolymer (B1) further carrying a functional group selected from particular functional groups or a blend of an ethylene-2-ethylhexyl (meth)acrylate copolymer (B2) which does not carry any of the functional groups which can be carried by copolymer (B1) and an impact modifier which does carry one of the functional groups that can be carried by copolymer (B1).

Applicants submit that new claim 16 does not raise new issues because it is an embodiment within the scope of claim 1 (prior to its amendment herein) which further has the limitations recited in claim 13. Therefore, Applicants respectfully request that this Amendment be entered.

In the Office Action, claims 1, 3-5, 12, 13 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 4,554,320 to Reimann et al. ("Reimann").

In view of the amendments and remarks herein, Applicants respectfully request reconsideration and withdrawal of the rejection set forth in the Office Action.

I. The Rejection

Claims 1, 3-5, 12, 13 and 15 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Reimann for reasons of record.

As noted above, claim 1 has been amended to delete polyamides and polyamide block copolymers from the recitation of thermoplastic polymers (M) therein. Thus, the thermoplastic polymers recited in claim 1 are now fluoropolymers, polycarbonate, styrene resins, PMMA, thermoplastic polyurethanes, copolymers containing polyester blocks and

polyether blocks, polycarbonate-polyester alloys, polyketones, PVC and ethylene-vinyl alcohol copolymers.

The only thermoplastic polymer disclosed in Reimann is nylon (i.e., polyamide). Reimann does not teach or suggest the use of any of the thermoplastic polymers recited in instant claim 1. Reimann provides no motivation to use therein any thermoplastic polymer other than nylon and does not teach or suggest that nylon is interchangeable with other thermoplastic polymer for the purposes of the invention therein. Therefore, for at least this reason, Applicants submit that claim 1 and claims 3-5, 12, 13 and 15 (which depend directly or indirectly upon claim 1) would not have been obvious over Reimann.

II. New Claim 16

Applicants also respectfully submit that Reimann would not have rendered new claim 16 obvious.

New claim 16 is directed to the same thermoplastic composition as recited in claim 1 except that the claim 16 composition is limited to polyamides or polyamide copolymers as the thermoplastic polymer and ethylene-2-ethylhexyl (meth)acrylate as copolymer (B) and further that the claim 16 composition contains 75 to 85% by weight of the thermoplastic polymer and 25 to 15% by weight of the copolymer (B).

According to the Office Action:

Applicants' reliance on the experimental data in the specification, comparing an ethylene copolymer having two carbon atoms against an ethylene copolymer having eight carbon atoms, is noted. Said showing, however, does not compare the closest embodiment of the prior art, i.e., an ethylene copolymer having seven, or at the very least, four carbon atoms. Accordingly, such is not deemed probative of unusual or unexpected results.

The method for preparing the thermoplastic composition in Example 5 in the instant specification followed substantially the same procedure followed in Example 22 set forth in Reimann, except that the terpolymer used in Reimann's Example contained

ethylene, n-butyl acrylate and maleic anhydride; and the terpolymer used in Applicants' Example 5 (which is within the scope of instant claim 16) contained ethylene, 2-ethylhexyl acrylate and maleic anhydride. Thus, the alkyl used in Reimann was n-butyl and the alkyl used in Applicants' Example 5 (and instant claim 16) was 2-ethylhexyl. Applicants submit that because the method for making the thermoplastic composition in instant Example 5 and the method used in Reimann's Example 22 are substantially similar to one another, a comparison of the results achieved in Applicants' example with the results achieved in Reimann's example constitutes a comparison of Applicants' claimed composition with the closest prior art.

The composition prepared in Applicants' Example 5 had a notched charpy impact strength at 23°C of 43 (kJ m⁻²) and a notched charpy impact strength at -40°C of 17 (kJ m⁻²). The composition prepared in Reimann's Example 22 had a notched impact strength at 23°C of 40.7 (kJ m⁻²) and a notched impact strength at -40°C of 11.3 (kJ m⁻²). Thus, although the two compositions had similar impact strength properties at 23°C, Applicants' Example 5 composition had substantially better impact strength properties at -40°C than did Reimann's Example 22 composition. The composition prepared in Applicants' Example 4 (a comparative example), wherein the alkyl was ethyl, had an impact strength at 23°C of 34 (kJ m⁻²) and an impact strength at -40°C of 11 (kJ m⁻²). Thus, the Example 4 composition, which used ethyl as the alkyl group in the terpolymer, had an impact strength at -40°C that was substantially the same as that obtained with Reimann's Example 22 composition, which used n-butyl as the alkyl group, and substantially lower than that obtained with Applicants' Example 5 composition, which used 2-ethylhexyl as the alkyl group.

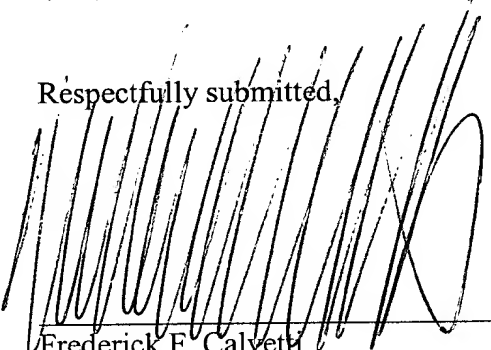
Thus, Applicants respectfully submit that the comparison of Applicants' Example 5 composition with Reimann's Example 22 composition constitutes a comparison of Applicants' claim 16 composition with the closest prior art and shows unexpected results achieved with Applicants' claim 16 composition.

In view of the foregoing remarks, Applicants respectfully submit that claim 16 is patentable over Reimann.

III. Conclusion

In view of the foregoing amendments and remarks, Applicants respectfully request that the rejection be withdrawn and that claims 1, 3-5, 12, 13, 15 and 16 be allowed.

Respectfully submitted,

A large, stylized handwritten signature in black ink, appearing to read 'Frederick F. Calvetti', is written over a horizontal line.

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MARKED-UP PREVIOUS VERSION OF AMENDED CLAIM

1. (Three Times Amended) Thermoplastic compositions comprising:

- 40 to 97 parts of a thermoplastic polymer (M) forming a matrix, the thermoplastic polymer (M) being selected from the group consisting of [polyamides, polyamide block copolymers,] fluoro polymers, polycarbonate, styrene resins, PMMA, thermoplastic polyurethanes (TPU), copolymers containing polyester blocks and polyether blocks, polycarbonate-polyester alloys, polyketones, PVC and ethylene-vinyl alcohol copolymers (EVOH),

- 60 to 3 parts of (B) comprising:

either an ethylene-alkyl (meth)acrylate copolymer (B1), the alkyl having at least 8 carbon atoms, which copolymer (B1) further carries a functional group selected from the group consisting of carboxylic acids, carboxylic acid derivatives other than the ester functional group of the acrylate portion of the copolymer (B1), acid chlorides, isocyanates, oxazolines, epoxides, amines and hydroxides, or a blend of an ethylene-alkyl (meth)acrylate copolymer (B2), the alkyl having at least 8 carbon atoms, which copolymer (B2) does not carry a functional group selected from the group consisting of carboxylic acids, carboxylic acid derivatives other than the ester functional group of the acrylate portion of the copolymer (B2), acid chlorides, isocyanates, oxazolines, epoxides, amines and hydroxides, and of an impact modifier which carries a functional group selected from the group consisting of carboxylic acids and their derivatives, acid chlorides, isocyanates, oxazolines, epoxides, amines and hydroxides.